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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,875	10/15/2003	John Norman Lodal	10013180-4	7440

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 50527-2400

EXAMINER

HSIEH, SHIH WEN

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,875

Applicant(s)

LODAL ET AL.

Examiner

Shih-wen Hsieh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-8,24 and 30-58 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,4-8,24 and 30-58 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 10-16-03;11-12-04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 101603;111703;12004
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 41-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Lines 7-8 of claim 41 is unclear. Lines 7-8 recites: "wherein said wiper cleaner comprises an ink absorber, which is disposed directly below said print head wiper when said print head wiper engages said wiper cleaner". Because the wiper cleaner according to figs. 1-4 is indicated as the second element 42 (refer to col. 4, lines 30-31). Second element 42 includes a blade part (44) and ink absorption medium (46) part. Head wiper is indicated as (38). The ink absorber is indicated by numeral (40) and is mounted opposite to the wiper and on the same rotatable shaft (36). Therefore, up to now, it is clear that "an ink absorber", which is disposed directly below said print head wiper when said print head wiper engages said wiper cleaner" in this claim means to say the ink absorber is numeral (40), not numeral (46). Because only (40) can assume a position, which is disposed directly below said print head wiper as it was show in figs. 1-3. Therefore, "said wiper cleaner comprises an ink absorber, which is disposed directly below said print head wiper when said print head wiper engages said wiper cleaner" in

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this claim is unclear as long as "said wiper cleaner" is represented by numeral 42 is concerned, i.e., it is the wiper has the ink absorber which is disposed directly below said print head wiper, not the wiper cleaner. Please clarify.

Claims 41-47 have no art rejection until the unclear problem is resolved.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 4-8, 24, 30-33, 35, 40, 48, 50-58 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,692,101 B2 respectively. Although the conflicting claims are not identical, they are not patentably distinct from each other because both cases deal with a wiper and a wiper cleaner. Below is a table of comparison between claims to indicate their similarities:

<p><u>10/686,875</u></p> <p>1. An apparatus for servicing an inkjet print head comprising: a print head wiper adjacent to said print head for wiping said inkjet print head; a wiper cleaner adjacent to said print head wiper for cleaning said print head wiper; a rotatable shaft on which said print head wiper is mounted, said print head wiper being configured to wipe said inkjet print head as said shaft rotates; and an ink absorber integrated with said print head wiper and mounted on said rotatable shaft.</p> <p>4. The apparatus of claim 1, wherein said ink absorber is mounted on said shaft opposite said print head wiper.</p> <p>51. The apparatus of claim 48, further comprising a second ink absorber mounted on said shaft opposite said print head wiper.</p>	<p><u>6,692,101 B2</u></p> <p>1. An apparatus for servicing an inkjet print head comprising: a print head wiper adjacent to said print head for wiping said inkjet print head, wherein said print head wiper is mounted on a rotatable shaft for wiping said inkjet print head as said shaft rotates; a wiper cleaner adjacent to said print head wiper for cleaning said print head wiper, wherein said wiper cleaner cleans said print head wiper as said print head wiper rotates past and contacts said wiper cleaner; and an ink absorber integrated with said print head wiper and mounted on said rotatable shaft, wherein said ink absorber is mounted on said shaft opposite said print head wiper.</p>
<p>5. The apparatus of claim 1, wherein said wiper cleaner comprises a fixed element spaced from said print head wiper such that said wiper cleaner interferes with a path of rotation of said print head wiper when said print head wiper is rotated about said rotatable shaft past said wiper cleaner.</p> <p>7. The apparatus of claim 5, wherein said wiper cleaner is mounted to a print media guide of an inkjet printer.</p> <p>48. An apparatus for servicing an inkjet print head comprising: a print head wiper adjacent to said print head for wiping said inkjet print head; a wiper cleaner adjacent to said print head wiper for cleaning said print head wiper; and a rotatable shaft on which said print head wiper is mounted, said print head wiper being configured to wipe said inkjet print head as said shaft</p>	<p>2. An apparatus for servicing an inkjet print head comprising: a print head wiper adjacent to said print head for wiping said inkjet print head, wherein said print head wiper is mounted on a rotatable shaft for wiping said inkjet print head as said shaft rotates; and a wiper cleaner adjacent to said print head wiper for cleaning said print head wiper, wherein said wiper cleaner cleans said print head wiper as said print head wiper rotates past and contacts said wiper cleaner; <u>wherein said wiper cleaner comprises a fixed element spaced from said print head wiper such that said wiper cleaner interferes with a path of rotation of said print head wiper when said print head wiper is rotated about said rotatable shaft past said wiper cleaner; and</u></p>

<p>rotates; wherein said wiper cleaner is attached to a print media guide.</p> <p>57. The apparatus of claim 53, wherein said wiper cleaner is mounted to a print media guide of an inkjet printer.</p>	<p>wherein said wiper cleaner is mounted to a print media guide of an inkjet printer.</p>
<p>6. The apparatus of claim 5, wherein said wiper cleaner further comprises an ink absorbing media to absorb ink that is wiped from said print head wiper.</p> <p>50. The apparatus of claim 48, further comprising an ink absorber for absorbing ink scraped from said print head wiper by said wiper cleaner, wherein said ink absorber is disposed between said print media guide and said wiper cleaner.</p>	<p>3. The apparatus of claim 2, wherein said wiper cleaner further comprises an ink absorbing media to absorb ink that is wiped from said print head wiper.</p>
<p>8. The apparatus of claim 1, wherein said print head wiper comprises a rubber helical protrusion to reduce wiping torque.</p> <p>52. The apparatus of claim 48, wherein said print head wiper comprises a flexible helical protrusion to reduce wiping torque.</p>	<p>4. An apparatus for servicing an inkjet print head comprising: a print head wiper adjacent to said print head for wiping said inkjet print head; and a wiper cleaner adjacent to said print head wiper for cleaning said print head wiper; <u>wherein said print head wiper comprises a rubber helical protrusion to reduce wiping torque.</u></p>
<p>58. The apparatus of claim 53, wherein said print head wiper comprises a flexible helical protrusion to reduce wiping torque.</p>	<p>5. An inkjet print head servicing mechanism comprising: a first element rotatably mounted to a shaft with a protrusion extending therefrom for cleaning a stationary inkjet print head; and a second element for cleaning the first element; wherein the protrusion comprises a helical shape to reduce rotation torque as said protrusion contacts said second element.</p>

<p>24. An apparatus for servicing an inkjet printer comprising: a print head rotatably mounted to a rotor of said inkjet printer and selectively positionable in at least three rotary positions; and a first wiper disposed adjacent to said print head, said first wiper including a protrusion extending such that said protrusion contacts said print head as said print head is rotated past said first wiper.</p> <p>30. The apparatus of claim 24, further comprising a spittoon mounted adjacent to said first wiper, said spittoon including a depository receptive of ink ejected from said print head.</p> <p>32. The apparatus of claim 31, further comprising a cap integrated with said second wiper, wherein said cap provides a hermetic seal with said print head in one of said at least three rotary positions.</p> <p>33. The apparatus of claim 24, further comprising a cap, wherein said cap provides a hermetic seal with said print head in one of said at least three rotary positions.</p>	<p>10. An apparatus for servicing an inkjet printer comprising: a print head rotatably mounted to a rotor for selectively positioning said print head in at least three positions; a first wiper disposed adjacent to said print head for wiping said print head as said print head is rotated past the wiper; a spittoon disposed adjacent to said first wiper for collecting ink ejected from said print head; and a cap disposed adjacent to said spittoon for hermetically sealing said print head.</p>
<p>31. The apparatus of claim 30, further comprising a second wiper disposed adjacent to said spittoon, said second wiper including a protrusion extending such that said protrusion contacts said print head after said print head rotates past said spittoon.</p>	<p>12. The apparatus of claim 10, further comprising a second wiper integrated with said cap for wiping said print head after said print head ejects ink into said spittoon.</p>
<p>35. A method of operating an inkjet print head, said method comprising:</p>	<p>5. An inkjet print head servicing mechanism comprising: a first element</p>

<p>wiping said print head with a print head wiper rotatably disposed on a shaft, wherein said wiping is performed by rotating said print head wiper on said shaft to wipe said print head; rotating said print head wiper to orient an ink absorber adjacent to said print head, wherein said ink absorber is integrated with said print head wiper and rotatably disposed on said shaft; and ejecting ink from said print head into said ink absorber.</p> <p>40. The method of claim 35, further comprising reducing a wiper torque of said print head wiper by using a helical protrusion on said print head wiper.</p> <p>54. The apparatus of claim 53, further comprising an ink absorber integrated with said print head wiper and said cap, and mounted on said shaft.</p>	<p>rotatably mounted to a shaft with a protrusion extending therefrom for cleaning a stationary inkjet print head; and a second element for cleaning the first element; wherein the protrusion comprises a helical shape to reduce rotation torque as said protrusion contacts said second element.</p> <p>6. The servicing mechanism of claim 5, wherein said first element further comprises an ink absorption pad for collecting ink expelled by said inkjet print head.</p>
<p>53. An apparatus for servicing an inkjet print head comprising: a print head wiper adjacent to said print head for wiping said inkjet print head; a wiper cleaner adjacent to said print head wiper for cleaning said print head wiper; a rotatable shaft on which said print head wiper is mounted, said print head wiper being configured to wipe said inkjet print head as said shaft rotates; and an cap for hermetically sealing said print head integrated with said print head wiper and mounted on said rotatable shaft, wherein said shaft is configured to move laterally to selectively seal said print head with said cap.</p>	<p>5. An inkjet print head servicing mechanism comprising: a first element rotatably mounted to a shaft with a protrusion extending therefrom for cleaning a stationary inkjet print head; and a second element for cleaning the first element; wherein the protrusion comprises a helical shape to reduce rotation torque as said protrusion contacts said second element.</p> <p>7. The servicing mechanism of claim 6, wherein said first element further comprises an inkjet print head cap for capping said inkjet print head.</p> <p>8. The servicing mechanism of claim 7, wherein said protrusion, ink absorption pad, and inkjet print head cap are spaced about a periphery of said first element.</p>
<p>55. The apparatus of claim 53, wherein said wiper cleaner comprises a fixed element spaced from said print head</p>	<p>9. The servicing mechanism of claim 5, wherein said second element further comprises a wiping blade for cleaning</p>

wiper such that said wiper cleaner interferes with a path of rotation of said print head wiper when said print head wiper is rotated about said rotatable shaft past said wiper cleaner. 56. The apparatus of claim 53, wherein said wiper cleaner further comprises an ink absorbing media to absorb ink that is wiped from said print head wiper.	said protrusion of said first element and an ink absorption medium for collecting ink cleaned from said protrusion.
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Claim 1:

The subject matters of wiper, wiper cleaner, rotatable shaft and integrated ink absorber in claim 1 in the instant application are obvious over those in the patent ('101). However, the recitation of claim 1 of the instant application is broader than that in the patent ('101).

Claim 4:

Corresponding to the wherein paragraph in claim 1 of patent ('101).

Claim 5:

Corresponding to the underlined portion in claim 2 of patent ('101). Claim 2 is another independent claim, however, its head wiper and wiper cleaner are the same as those in claim 1. Therefore, by saying claim 5 corresponding to the underlined portion in claim 2 of patent ('101) is proper.

Claim 6:

Corresponding to claim 3 of patent ('101).

Claim 7:

Corresponding to the bold face portion in claim 2 of patent ('101).

Claim 8:

Corresponding to the underlined portion in claim 4 of patent ('101).

Claim 24:

All of the subject matters such as the rotatably mounted head; first wiper, spittoon, integrated cap are obvious over those in claim 10 of patent ('101).

Claim 30:

Corresponding to claim 10 of patent ('101).

Claim 31:

Corresponding to claim 12 of patent ('101).

Claim 32:

Corresponding to claim 10 of patent ('101).

Claim 33:

Corresponding to claim 10 of patent ('101).

Claims 35 and 40:

These are method claims. There are no method claims in patent ('101). However, the method claims are deemed to be made inherent by the functions of the structure in the structure claims discussed above.

Claim 35 corresponds to claim 5, where wiping the print head step corresponds to the first element in claim 5 of patent ('101); ink absorber corresponds to claim 6.

Claim 40 corresponds to wherein portion in claim 5.

Claim 48:

Corresponding to claim 2 of patent ('101).

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Claim 50:

Corresponding to claim 3 of patent ('101). The difference between this claim and claim 3 of patent ('101) is claims of patent ('101) do not teach:

wherein said ink absorber is disposed between said print media guide and said wiper cleaner.

It would have been an obvious matter that since the wiper cleaner has to be disposed away from the wiper so as to allow the wiper to contact the wiper cleaner in its rotating path, and the ink absorber as it associates with the wiper cleaner will be also disposed away from the head wiper, therefore, said ink absorber is disposed between said print media guide and said wiper cleaner is a reasonable selection, and carries less patentable weight.

Claim 51:

Corresponding to claim 1 of patent ('101), in which, the second ink absorber is the bold face portion in claim 1. Claims 1 and 2 are two independent claims, however, both deal with a wiper mounted on a rotatable shaft, and a wiper cleaner. Therefore, claims 51 double-patented with these two claims is proper. However, claim 51 is only tabulated with claim 1 for clarity.

Claim 52:

Corresponding to claim 4 of patent ('101).

Claim 53:

Corresponding to claims 5, 7 and 8 of patent ('101).

Claim 54:

Corresponding to claim 6 of patent ('101).

Claim 55:

Corresponding to claim 6 of patent ('101).

Claim 56:

Corresponding to claim 9 of patent ('101).

Claim 57:

Corresponding to claim 2 of patent ('101).

Claim 58:

Corresponding to claim 5 of patent ('101).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4 and 35-39 rejected under 35 U.S.C. 102(b) as being anticipated by Toshio (JP 60030348, an English translated copy will be furnished to you at a later date).

In regard to:

Claim 1:

Fisher teaches:

An apparatus for servicing an inkjet print head comprising:
a print head wiper (15, fig. 5) adjacent to said print head (10, fig. 5) for wiping said inkjet print head, refer to English constitution; and
a wiper cleaner (18, fig. 5) adjacent to said print head wiper for cleaning said print head wiper, refer to English Constitution;
a rotatable shaft (no number on fig. 5, however, is the little circle in the center of the capping member 9) on which said print head wiper is mounted, said print head wiper being configured to wipe said inkjet print head as said shaft rotates, refer to English constitution; and
an ink absorber (13, fig. 5) integrated with said print head wiper and mounted on said rotatable shaft, refer to English constitution.

Claim 4:

Toshio further teaches:

wherein said ink absorber (13) is mounted on said shaft opposite said print head wiper, refer to fig. 5. Note: based on a position relationship in fig. 5, the purge section 13, which functions as an ink absorber to hold ink ejected from nozzles 11 can be considered as located opposite to the location of wiper 15.

Claim 35:

A method of operating an inkjet print head, said method comprising:
wiping said print head with a print head wiper rotatably disposed on a shaft, wherein said wiping is performed by rotating said print head wiper on said shaft to wipe said print head;

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rotating said print head wiper to orient an ink absorber adjacent to said print head, wherein said ink absorber is integrated with said print head wiper and rotatably disposed on said shaft; and

ejecting ink from said print head into said ink absorber.

Rejection:

This claim is rejected on the basis as set forth for claim 1 discussed above.

Claim 36:

The method of claim 35, wherein said ink absorber is mounted on said shaft opposite said print head wiper.

Rejection:

This claim is rejected on the basis as set forth for claim 4 discussed above.

Claim 37:

Toshio further teaches:

cleaning said print head wiper (15, fig. 5) with a wiper cleaner (18, fig. 5).

Claim 38:

The method of claim 37, wherein said wiper cleaner comprises a fixed element (18, fig. 5) spaced from said print head wiper and cleaning said print head wiper comprises rotating said wiper past an interference with said wiper cleaner, refer to English Constitution.

Claim 39:

The method of claim 38, wherein cleaning said wiper (15) further comprises absorbing ink scraped from said print head wiper (15) by said wiper cleaner (18) with an

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ink absorber located at said wiper cleaner, refer to English constitution, also 18 is the same as 21 shown in fig. 6, where 21 being indicated as an ink absorbing material.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 24 is rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe et al. (EP 0 430 077, from IDS).

Watanabe et al. teach in their figs. 3-5, 7 and 8:

An apparatus for servicing an inkjet printer comprising:

a print head (17) rotatably mounted to a rotor (18) of said inkjet printer and selectively positionable in at least three rotary positions (figs. 3-5, printing position; fig. 7 wiping position and fig. 8 capping position); and

a first wiper (20) disposed adjacent to said print head, said first wiper including a protrusion extending such that said protrusion contacts said print head as said print head is rotated past said first wiper.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher (US pat. No. 5,051,761) in view of Sugiura (JP 404141440 A).

Fisher teaches:

An apparatus for servicing an inkjet print head comprising:

a print head wiper (24, fig. 1) adjacent to said print head (31, fig. 1) for wiping said inkjet print head;

a rotatable shaft (19, fig. 1) on which said print head wiper is mounted, said print head wiper being configured to wipe said inkjet print head as said shaft rotates (in direction 30, fig. 1); and

an cap (22, fig. 1) for hermetically sealing said print head integrated with said print head wiper and mounted on said rotatable shaft, wherein said shaft is configured

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to move laterally (direction 28) to selectively seal said print head with said cap, refer to col. 4, line 44 to col. 5, line 5.

The device of Fisher DIFFERS from claim 53 in that it does not teach:
a wiper cleaner adjacent to said print head wiper for cleaning said print head wiper.

Sugiura teaches a rotary wiper member (8) as shown in figs. (1-3), and a dust removing plate (10, figs. 1-3 corresponding to a wiper cleaner) for to remove ink residues attached to the wiper member, refer to at least English Constitution.

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Fisher to include a dust removing plate as taught by Sugiura for the purpose of removing residue ink attached to the wiper member after the wiper member wipes clean the print head (4).


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-wen Hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 7:30AM -5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Talbott can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SHIH-WEN HSIEH
PRIMARY EXAMINER


Shih-wen Hsieh
Primary Examiner
Art Unit 2861

SWH


June 14, 2005